

Carbon Monoxide Air Quality Data Update 2005-2006 Design Values

The following is a brief summary of EPA's 2006 air quality update for carbon monoxide (CO) based on ambient monitoring data for the two year period, 2005-2006. During this two year period:

- All of the original 42 areas designated nonattainment for the 8-hour CO NAAQS in 1991 met the CO NAAQS in 2005-2006 (Table 1).
- However, 1 additional area failed to meet the CO NAAQS in 2005-2006 (Table 2).

EPA's National Ambient Air Quality Standard for carbon monoxide is 9 parts per million (ppm) non-overlapping 8-hour average concentration not to be exceeded more than once per year. The CO standard is not met at a monitoring site if there are two or more exceedances of the level of the CO NAAQS in either of the two most recent calendar years of monitoring data.

Air quality data from EPA's Air Quality System (AQS) were used to calculate carbon monoxide design values. The specific calculations are explained in footnotes to the attached tables. The data used for these calculations were obtained from AQS on July 11, 2007. To date, no regulatory decisions on attainment status have been made for any area based on these specific calculations. For information concerning these data, contact:

James Hemby
U.S. Environmental Protection Agency
Air Quality Trends and Analysis Group (C304-04)
Research Triangle Park, NC 27711
(919) 541-5459, (919) 541-3613 (FAX)
hemby.james@epa.gov

Table 1. Areas previously designated nonattainment for the 8-hour Carbon Monoxide NAAQS, 2005-2006

<u>Designated Area</u>	<u>State</u>	<u>EPA Region</u>	<u>Classification</u>	<u>Regulatory Status</u>	<u>2005-2006</u>	<u>Met NAAQS</u>	<u>2nd Maximum Value, 2006</u> ⁽²⁾	<u>Number of Exceedances, 2005</u> ⁽³⁾	<u>2nd Maximum Value, 2005</u> ⁽²⁾	<u>Number of Exceedances, 2005</u> ⁽³⁾
					<u>Design Value</u> ⁽¹⁾	<u>2006?</u>				
Albuquerque	NM	6	Moderate	Maintenance	3.1	yes	3.1	0	3.0	0
Anchorage	AK	10	Serious	Maintenance	6.1	yes	4.6	0	6.1	0
Baltimore	MD	3	Moderate	Maintenance	2.7	yes	2.7	0	2.1	0
Boston	MA	1	Moderate	Maintenance	2.3	yes	2.3	0	1.7	0
Chico	CA	9	Moderate	Maintenance	2.6	yes	2.5	0	2.6	0
Cleveland	OH	5	Moderate	Maintenance	3.9	yes	2.9	0	3.9	0
Colorado Springs	CO	8	Moderate	Maintenance	2.7	yes	2.7	0	2.4	0
Denver-Boulder	CO	8	Serious	Maintenance	3.1	yes	2.5	0	3.1	0
Duluth	MN	5	Moderate	Maintenance	1.6	yes	1.6	0	1.4	0
El Paso	TX	6	Moderate	Nonattainment	5.4	yes	5.4	0	3.7	0
Fairbanks North Star Borough	AK	10	Serious	Maintenance	4.5	yes	4.5	0	3.7	0
Fort Collins	CO	8	Moderate	Maintenance	2.7	yes	2.4	0	2.7	0
Fresno	CA	9	Moderate	Maintenance	3.2	yes	2.8	0	3.2	0
Grant Pass	OR	10	Moderate	Maintenance	3.6	yes	3.6	0	2.4	0
Hartford - New Britain - Middletown	CT	1	Moderate	Maintenance	4.4	yes	4.4	0	4.0	0
Klamath Falls	OR	10	Moderate	Maintenance	3.0	(4)	3.0	0	(4)	(4)
Lake Tahoe S. Shore	CA	9	Moderate	Maintenance	3.6	(5)	3.6	0	incomplete ⁽⁵⁾	incomplete ⁽⁵⁾
Las Vegas	NV	9	Serious	Nonattainment	5.2	yes	5.2	0	5.0	0
Longmont	CO	8	Moderate	Maintenance	3.3	yes	2.8	0	3.3	0
Los Angeles South Coast Air Basin	CA	9	Serious	Maintenance	5.6	yes	5.6	0	5.6	0
Medford	OR	10	Moderate	Maintenance	3.8	yes	3.8	0	2.8	0
Memphis	TN	4	Moderate	Maintenance	2.5	yes	2.3	0	2.5	0
Minneapolis-St. Paul	MN	5	Moderate	Maintenance	3.0	yes	3.0	0	2.5	0
Missoula	MT	8	Moderate	Nonattainment	3.6	yes	3.6	0	2.4	0
Modesto	CA	9	Moderate	Maintenance	3.7	yes	2.5	0	3.7	0
New York-N. New Jersey-Long Island	NJ	2	Moderate	Maintenance	3.4	yes	3.4	0	2.9	0
Ogden	UT	8	Moderate	Maintenance	5.3	yes	5.3	0	2.9	0
Philadelphia-Camden Co	PA	3	Moderate	Maintenance	3.4	yes	3.4	0	3.2	0
Phoenix	AZ	9	Serious	Maintenance	4.8	yes	4.8	0	4.5	0
Portland-Vancouver	OR	10	Moderate	Maintenance	4.6	yes	4.6	0	3.2	0
Provo-Orem	UT	8	Moderate	Maintenance	3.2	yes	2.9	0	3.2	0
Raleigh-Durham	NC	4	Moderate	Maintenance	2.5	yes	2.4	0	2.5	0
Reno	NV	9	Moderate	Nonattainment	3.3	yes	3.2	0	3.3	0
Sacramento	CA	9	Moderate	Maintenance	3.7	yes	3.7	0	3.5	0
San Diego	CA	9	Moderate	Maintenance	4.4	yes	3.6	0	3.3	0
San Francisco-Oakland-San Jose	CA	9	Moderate	Maintenance	3.0	yes	3.0	0	2.7	0
Seattle-Tacoma	WA	10	Moderate	Maintenance	3.9	yes	3.9	0	2.1	0
Spokane	WA	10	Serious	Maintenance	5.1	yes	5.1	0	4.1	0
Stockton	CA	9	Moderate	Maintenance	2.5	yes	2.5	0	2.2	0
Syracuse	NY	2	Moderate	Maintenance	1.9	yes	1.9	0	1.4	0

Table 1. Areas previously designated nonattainment for the 8-hour Carbon Monoxide NAAQS, 2005-2006										
<u>Designated Area</u>	<u>State</u>	<u>EPA Region</u>	<u>Classification</u>	<u>Regulatory Status</u>	<u>2005-2006 Design Value</u> (1)	<u>Met NAAQS 2006?</u>	<u>2nd Maximum Value, 2006</u> ⁽²⁾	<u>Number of Exceedances, 2005</u> ⁽³⁾	<u>2nd Maximum Value, 2005</u> ⁽²⁾	<u>Number of Exceedances, 2005</u> ⁽³⁾
Washington	DC	3	Moderate	Maintenance	3.3	yes	3.2	0	3.3	0
Winston-Salem	NC	4	Moderate	Maintenance	2.5	yes	2.5	0	2.4	0
Notes:										
1. The level of the 8-hour National Ambient Air Quality Standard for carbon monoxide is 9 parts permillion (ppm) not to be exceeded more than once per year. The design value for the 8-hour CO NAAQS is the highest annual second maximum non-overlapping 8-hour concentration during the most recent two years.										
2. Annual second highest non-overlapping 8-hour average concentration.										
3. Number of non-overlapping exceedances of the 8-hour CO NAAQS.										
4. Klamath Falls was redesignated to attainment for the 8-hour CO NAAQS on September 20, 2001. In 2005, with the approval of EPA's Region 10 office, the Oregon Department of Environmental Quality (ODEQ) discontinued CO monitoring in the Klamath Falls maintenance area after recording values well below standard the previous three years. The Region 10 approval of the discontinuation of the Klamath Falls CO monitor requires that the ODEQ periodically reassess the need for CO monitoring data to verify compliance with the standard. ODEQ has agreed in their annual network monitoring plan to track CO emission inventories every three years to determine if additional CO monitoring is needed.										
5. Responsibility for the operation of the monitoring site representing the Lake Tahoe - South Shore maintenance area was transferred from the California Air Resources Board to the Nevada Department of Environmental Protection in 2006. The data incompleteness for 2006 is a result of some administration difficulties in transferring this responsibility.										
SOURCE: U.S. EPA's Air Quality System (AQS) as of July 11, 2007.										

Table 2. Additional areas failing to meet the 8-hour Carbon Monoxide NAAQS, 2005-2006

<u>State</u>	<u>County</u>	<u>EPA Region</u>	<u>2005-2006 Design Value</u> ⁽¹⁾	<u>Met NAAQS 2005-2006?</u>	<u>2nd Maximum Value, 2006</u> ⁽²⁾	<u>Number of Exceedances, 2006</u> ⁽³⁾	<u>2nd Maximum Value, 2005</u> ⁽²⁾	<u>Number of Exceedances, 2005</u> ⁽³⁾
Alabama	Jefferson ⁽⁴⁾	4	9.5	No	8.8	0	9.5	2

Notes:

1. The level of the 8-hour National Ambient Air Quality Standard for carbon monoxide is 9 parts per million (ppm) not to be exceeded more than once per year. The design value for the 8-hour CO NAAQS is the highest annual second maximum non-overlapping 8-hour concentration during the most recent two years.
2. Annual second highest non-overlapping 8-hour average concentration.
3. Number of non-overlapping exceedances of the 8-hour CO NAAQS.
4. The monitor from which these data are taken is located directly across the street from, and is impacted by a stationary source. The monitor continues to operate for compliance and enforcement reasons. There are ongoing enforcement/compliance actions by the Jefferson County Department of Health, including Title V permit revisions, to address this situation.

SOURCE: U.S. EPA's Air Quality System (AQS) as of July 11, 2007.